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10/691,888	10/23/2003	Timothy P. McKee	MFCP.110115	8996

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EXAMINER
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LE, MIRANDA

ART UNIT	PAPER NUMBER
2167	

MAIL DATE	DELIVERY MODE
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/691,888

Applicant(s)

MCKEE ET AL.

Examiner

Miranda Le

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2007 has been entered.
2. This communication is responsive to Amendment, filed 10/30/2007.  
  
Claims 1-28 are pending in this application. This action is made non-Final.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time

a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckner (US Patent No. 6,208,992), in view of Abrams (US Patent No. 6,151,608), and further in view of Daudenarde (US Patent No. 5,995,973).

**As per claim 1**, Bruckner teaches a computer system for presenting (*i.e. various logical views, col. 3, lines 61-67*) related items in a universal data storage device to a user (*i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed and evaluated, these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39*), the system comprising:

a universal data storage device (*i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed and evaluated, col. 3, lines 31-39*) containing a plurality of items (*i.e. objects, col. 3, lines 31-39*) stored in accordance with a data universal schema (*i.e. physical structure of a data model, col. 3, lines 31-39; conceptual schemata, col. 3, lines 61-67*) and containing relational information (*i.e. these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to*

*them, in order to be able to identify and describe the object links, col. 3, lines 31-39)*

corresponding to at least a portion (*i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39*) of said plurality of items, wherein the relational information allows relationships between two or more the plurality of items to be determined (*i.e. these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39*), wherein said universal data storage device utilizes said relational information to delete one or more items (*i.e. Each table has to have its specific input, access, modification and deletion algorithms, col. 2, lines 13-22; allowing them to be edited using identical transaction algorithms at system level for the entry, processing and evaluation, modification, output and deletion of information, col. 4, lines 1-16*) from the universal data storage device in response to a change in at least a portion (*i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39*) of said relationships, wherein said universal data storage device includes a reference-counting mechanism configured to count the number of relationships (*i.e. number of relationships between any type and number of objects, col. 4, lines 17-29*) between an item and other of said plurality of items in the universal data storage device (*i.e. Other fields in a link table can, in particular, also be used to evaluate the allocation in more detail, e.g. with regard to its relevance in terms of time (beginning and end of the allocation between book title and borrower=start and end of the lending period), but also with regard to the assessment by the operator as to whether the relationship exists (relationship exists de facto/is fictitious) or to the assessment of the*

*verification status of an allocation (e.g. a witness statement in a police information system), col. 7, lines 17-25); and*

*a shell for presenting (i.e. various logical views, col. 3, lines 61-67) said plurality of items to a user, wherein the shell is configured to present a selected item to a user (i.e. By using an universal, physical model, the invention avoids the disadvantage of prior art, which insists on gearing the data structure specifically to the concrete tasks in each case, and which entails complex, task-oriented implementation of the input, processing/evaluation, transaction and output algorithms, col. 3, lines 45-56) and is further configured to utilize said relational information (i.e. The invention assumes that all the information contents can be traced back to the following three basic elements: objects, attributes and relationships between objects, col. 4, lines 30-35) to present one or more items in said data storage device which are related to said selected item (i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

Bruckner teaches number of relationship between any type and number of objects at col. 4, lines 17-29, therefore, the number of relationship of Bruckner implies the counting mechanism, but Bruckner does not clearly disclose the counting mechanism.

Abrams teaches this limitation (*i.e. Count the number of foreign key relationship records for each table, col. 16, lines 27-28*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner and Abrams at the time the invention was made to modify the system of Bruckner to include the limitations as taught by Abrams. One of ordinary skill in the art would be motivated to make this combination in order to count the number of foreign key relationship records for each table in view of Abrams, as doing so would give the added benefit of having proper sequencing of the database loaded that allows related records in different tables to point to one another as taught by Abrams (col. 16, lines 47-48).

Bruckner, Abrams do not teach a mechanism being further configured to delete said item from the universal data storage device when all relationships to said item are removed.

Daudenarde teaches this limitation (*i.e. When the owner flag is set to TRUE, deleting the source object deletes the target object, col. 9, lines 33-44*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner, Abrams, and Daudenarde at the time the invention was made to modify the system of Bruckner, Abrams to include the limitations as taught by Daudenarde. One of ordinary skill in the art would be motivated to make this combination in order to delete the target object in view of Daudenarde, as doing so would give the added benefit of providing relationship objects for maintaining relationships between objects as taught by Daudenarde (Summary).

**As to claims 9, 25,** Bruckner teaches a computer-implemented method/system for presenting (*i.e. various logical views, col. 3, lines 61-67*) related items in a universal data storage device (*i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed*

*and evaluated, these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39) to a user, the method comprising:*

*accessing (i.e. entered, stored, processed and evaluated, these objects, col. 3, lines 31-39) data in said data storage device, wherein said universal data storage device stores a plurality of items in accordance with a universal data scheme, and wherein at least a portion (i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39) of said plurality of items contain relational information which allows relationships between said plurality of items to be determined (i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed and evaluated, these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39);*

*utilizing said relational information to determine (i.e. these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39) a relationship between a selected item and one or more of the items containing said relational information in the data storage device (i.e. The invention allows various logical views,*



*or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67);*

*displaying said selected item and one or more related items to the user (i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67);*

*receiving a user input (i.e. By using an universal, physical model, the invention avoids the disadvantage of prior art, which insists on gearing the data structure specifically to the concrete tasks in each case, and which entails complex, task-oriented implementation of the input, processing/evaluation, transaction and output algorithms, col. 3, lines 45-56) causing a change in said relationship (i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67);*

*counting the number of relationship (i.e. number of relationships between any type and number of objects, col. 4, lines 17-29) between said selected item and at least a portion of said other of said plurality of items in the universal data storage device (i.e. these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object*

*to be linked to any other type of object, and these object links in turn to have any type and number of attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39); and*

Bruckner teaches number of relationship between any type and number of objects at col. 4, lines 17-29, therefore, the number of relationship of Bruckner implies the counting mechanism, but Bruckner does not clearly disclose the counting mechanism.

Abrams teaches this limitation (*i.e. Count the number of foreign key relationship records for each table, col. 16, lines 27-28*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner and Abrams at the time the invention was made to modify the system of Bruckner to include the limitations as taught by Abrams. One of ordinary skill in the art would be motivated to make this combination in order to count the number of foreign key relationship records for each table in view of Abrams, as doing so would give the added benefit of having proper sequencing of the database loaded that allows related records in different tables to point to one another as taught by Abrams (col. 16, lines 47-48).

Bruckner, Abrams do not teach deleting said selected item from said universal data storage device when all relationships to said selected item are removed.

Daudenarde teaches this limitation (*i.e. When the owner flag is set to TRUE, deleting the source object deletes the target object, col. 9, lines 33-44*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner, Abrams, and Daudenarde at the time the invention was made to modify the system of Bruckner, Abrams to include the limitations as taught by Daudenarde. One of ordinary skill in

the art would be motivated to make this combination in order to delete the target object in view of Daudenarde, as doing so would give the added benefit of providing relationship objects for maintaining relationships between objects as taught by Daudenarde (Summary).

**As per claim 13**, Bruckner teaches one or more computer-readable media having computer-executable instructions for performing a method for presenting related items in a universal data storage device (*i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed and evaluated, col. 3, lines 31-39*) to a user, the method comprising:

accessing data in said universal data storage device (*i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed and evaluated, col. 3, lines 31-39*), wherein said universal data storage device store a plurality of items (*i.e. objects, col. 3, lines 31-39*) in accordance with a universal data schema (*i.e. physical structure of a data model, col. 3, lines 31-39; conceptual schemata, col. 3, lines 61-67*), and wherein at least a portion (*i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39*) of said plurality of items contain relational information which allows relationships between two or more of said plurality of items to be determined (*i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39*);

utilizing said relational information to determine (*i.e. these objects to be linked with any type and number of attributes and thus to be identified or described, any type of object to be linked to any other type of object, and these object links in turn to have any type and number of*

*attributes assigned to them, in order to be able to identify and describe the object links, col. 3, lines 31-39) a relationship between a selected item and one or more of the items containing said relational information in the in the data storage device (i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67);*

*presenting said selected item and one or more related items to the user (i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67);*

*receiving a user input (i.e. By using an universal, physical model, the invention avoids the disadvantage of prior art, which insists on gearing the data structure specifically to the concrete tasks in each case, and which entails complex, task-oriented implementation of the input, processing/evaluation, transaction and output algorithms, col. 3, lines 45-56) altering at least one of said one or more source items or altering at least a portion (i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39) of said relationship;*

*counting the number of relationships (i.e. number of relationships between any type and number of objects, col. 4, lines 17-29) between said selected item and at least a portion (i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39) of said other of said plurality of items in the universal data storage device (i.e. information on the time*

*or period of time when the relationship existed, information assessing the existence of the relationship (existence is matter of fact/verified/hypothetically assumed/etc.), col. 10, lines 41-42); and*

Bruckner teaches number of relationship between any type and number of objects at col. 4, lines 17-29, therefore, the number of relationship of Bruckner implies the counting mechanism, but Bruckner does not clearly disclose the counting mechanism.

Abrams teaches this limitation (*i.e. Count the number of foreign key relationship records for each table, col. 16, lines 27-28*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner and Abrams at the time the invention was made to modify the system of Bruckner to include the limitations as taught by Abrams. One of ordinary skill in the art would be motivated to make this combination in order to count the number of foreign key relationship records for each table in view of Abrams, as doing so would give the added benefit of having proper sequencing of the database loaded that allows related records in different tables to point to one another as taught by Abrams (col. 16, lines 47-48).

Bruckner, Abrams do not teach:

wherein at least a portion of said relationships designate one or more source items and one or more target items;

deleting said selected item from said universal data storage device when all relationships to said selected item are removed.

Daudenarde teaches:

wherein at least a portion of said relationships designate one or more source items and one or more target items (*i.e. When the owner flag is set to TRUE, deleting the source object deletes the target object, col. 9, lines 33-44*);

deleting said selected item from said universal data storage device when all relationships to said selected item are removed (*i.e. When the owner flag is set to TRUE, deleting the source object deletes the target object, col. 9, lines 33-44*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner, Abrams, and Daudenarde at the time the invention was made to modify the system of Bruckner, Abrams to include the limitations as taught by Daudenarde. One of ordinary skill in the art would be motivated to make this combination in order to delete the target object in view of Daudenarde, as doing so would give the added benefit of providing relationship objects for maintaining relationships between objects as taught by Daudenarde (Summary).

**As per claim 18**, Bruckner teaches a shell for presenting (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67*) related items in a universal data storage device to a user, the shell comprising:

a data storage device (*i.e. The invention provides an universal, physical structure of a data model which (in a partial system, see below) allows any type and number of objects to be entered, stored, processed and evaluated, col. 3, lines 31-39*) interaction component which

retrieves data associated with one or more items from the universal data storage device, wherein said one or more items are stored in accordance with a universal data schema (*i.e. physical structure of a data model, col. 3, lines 31-39; conceptual schemata, col. 3, lines 61-67*) and at least a portion (*i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39*) of said one or more items contains relational information that allows relationships between two or more items to be determined, wherein at least a portion (*i.e. any type and number of attributes and thus to be identified or described, col. 3, lines 31-39*) of said relationships has associated file-time management semantics;

a related item presentation component which utilizes said retrieved data to present related items to a user (*i.e. By using an universal, physical model, the invention avoids the disadvantage of prior art, which insists on gearing the data structure specifically to the concrete tasks in each case, and which entails complex, task-oriented implementation of the input, processing/evaluation, transaction and output algorithms, col. 3, lines 45-56*), wherein the relationship presentation component is configured to present a selected item to a user and is further configured to utilize said relational information to present one or more items in said data storage device which are related to said selected item (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67*); and

an item life-time management control (*i.e. Other fields in a link table can, in particular, also be used to evaluate the allocation in more detail, e.g. with regard to its relevance in terms*

*of time (beginning and end of the allocation between book title and borrower=start and end of the lending period), but also with regard to the assessment by the operator as to whether the relationship exists (relationship exists de facto/is fictitious) or to the assessment of the verification status of an allocation (e.g. a witness statement in a police information system), col. 7, lines 17-25) configured to count the number of relationships (i.e. number of relationships between any type and number of objects, col. 4, lines 17-29) between an item and other of said plurality of items in the universal data storage device (i.e. information on the time or period of time when the relationship existed, information assessing the existence of the relationship (existence is matter of fact/verified/hypothetically assumed/etc.), col. 10, lines 41-42).*

Bruckner teaches number of relationship between any type and number of objects at col. 4, lines 17-29, therefore, the number of relationship of Bruckner implies the counting mechanism, but Bruckner does not clearly disclose the counting mechanism.

Abrams teaches this limitation (*i.e. Count the number of foreign key relationship records for each table, col. 16, lines 27-28*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner and Abrams at the time the invention was made to modify the system of Bruckner to include the limitations as taught by Abrams. One of ordinary skill in the art would be motivated to make this combination in order to count the number of foreign key relationship records for each table in view of Abrams, as doing so would give the added benefit of having proper sequencing of the database loaded that allows related records in different tables to point to one another as taught by Abrams (col. 16, lines 47-48).



Bruckner, Abrams do not teach a management control being further configured to delete said item from the universal data storage device when all relationships to said item are removed.

Daudenarde teaches this limitation (*i.e. When the owner flag is set to TRUE, deleting the source object deletes the target object, col. 9, lines 33-44*).

It would have been obvious to one of ordinary skill of the art having the teaching of Bruckner, Abrams, and Daudenarde at the time the invention was made to modify the system of Bruckner, Abrams to include the limitations as taught by Daudenarde. One of ordinary skill in the art would be motivated to make this combination in order to delete the target object in view of Daudenarde, as doing so would give the added benefit of providing relationship objects for maintaining relationships between objects as taught by Daudenarde (Summary).

**As to claims 2, 19, 26,** Bruckner teaches the relational information corresponding to one or more of said plurality of items includes a set of item characteristics (*i.e. The invention concerns an information system, and, in particular, a process for the entry, storage, processing, evaluation, representation and output of information regarding the existence or assumed existence of any objects, the descriptive and/or identifying attributes of objects, any type and number of relationships between any type and number of objects, the descriptive and/or identifying attributes of relationships between objects on storage and processing systems (e.g. relational database systems, RDBMS) suitable for this purpose, col. 4, lines 17-29*).

**As to claims 3, 27,** Bruckner teaches said shell is configured to present one or more of said set of item characteristics to a user (*i.e. The invention allows various logical views, or*

*logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As per claim 4**, Bruckner teaches said shell is configured to accept a user input representing a selection to view one or more items in the data storage device (*i.e. By using an universal, physical model, the invention avoids the disadvantage of prior art, which insists on gearing the data structure specifically to the concrete tasks in each case, and which entails complex, task-oriented implementation of the input, processing/evaluation, transaction and output algorithms, col. 3, lines 45-56*) having one of said item characteristics (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

**As per claim 5**, Bruckner teaches said shell is configured to present one or more items in the data storage device which share one or more of said item characteristics (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

**As per claim 6**, Bruckner teaches the shell is configured to present at least a portion of said relational information (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

**As per claim 7**, Bruckner teaches the shell is configured to accept a user input representing a selection to view items (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67*) in the data storage device which are related to said selected item (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

**As per claim 8**, Bruckner teaches said relational information corresponding to the selected item includes a set of item characteristics associated with the selected item and wherein said user input represents a selection (*i.e. The invention assumes that all the information contents can be traced back to the following three basic elements: objects, attributes and relationships between objects, col. 4, lines 30-35*) to view one or more items in the data storage device which share one of said set of item characteristics with the selected item (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source*

*documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28).*

**As to claims 10,** Bruckner teaches the method of claim 9, wherein the displaying of said selected item and one or more related items includes displaying at least a portion of said relational information to a user (*i.e. The invention allows various **logical views**, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As to claims 11,** Bruckner teaches receiving a user input representing a selection to view one or more items in the data storage device which are related to said selected item (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As per claim 12,** Bruckner teaches the displaying of said selected item and one or more related items is responsive to said input (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual*

*schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As per claim 14**, Bruckner teaches the relational information includes a set of item characteristics (*i.e. The invention concerns an information system, and, in particular, a process for the entry, storage, processing, evaluation, representation and output of information regarding the existence or assumed existence of any objects, the descriptive and/or identifying attributes of objects, any type and number of relationships between any type and number of objects, the descriptive and/or identifying attributes of relationships between objects on storage and processing systems (e.g. relational database systems, RDBMS) suitable for this purpose, col. 4, lines 17-29).*

**As per claim 15**, Bruckner teaches accessing data in said universal data storage device is in response to a user input representing a selection to view one or more items (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67)* in the data storage device which are related to said selected item (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines*

25-28).

**As per claim 16**, Bruckner teaches said relational information corresponding to the selected item includes a set of item characteristics associated with the selected item and wherein said user input represents a selection (*i.e. The invention assumes that all the information contents can be traced back to the following three basic elements: objects, attributes and relationships between objects, col. 4, lines 30-35*) to view one or more items in the data storage device which share one or more item characteristics with the selected item (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

**As per claim 17**, Bruckner teaches the presenting of said selected item and one or more related items includes presenting at least a portion of said relational information to a user (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

**As per claim 20**, Bruckner teaches said related item presentation component is configured to present one or more of said set of item characteristics to a user (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing*

*and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As per claim 21**, Bruckner teaches said related item presentation component is configured to present (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*) one or more items in the data storage device which share one of said item characteristics (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As per claim 22**, Bruckner teaches the related item presentation component is configured to present (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*) at least a portion of said relational information (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67).*

**As per claim 23**, Bruckner teaches the shell is configured to accept a user input representing (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*) a selection to view items in the data storage device which are related to said selected item (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67*).

**As per claim 24**, Bruckner teaches said relational information corresponding to the selected item includes a set of item characteristics associated with the selected item and wherein said user input (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67*) represents a selection to view one or more items in the data storage device which share one of said set of item characteristics with the selected item (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).



As per claim 28, Bruckner teaches said means for accessing data in said universal data storage device interacts (*i.e. The invention allows various logical views, or logical views which can subsequently change (corresponding to the external or conceptual schemata) to be implemented via subsequent modification of editing and processing algorithms at application program level, without having to adapt the basic transaction and access algorithms to the physical data structure, col. 3, lines 61-67*) with said data storage device in response to a user input representing a selection to view one or more items in the data storage device having one of said item characteristics (*i.e. FIG. 9 shows the link between source documents and the management objects which help to manage source documents, identify and describe them using any attributes and place them in any relation to one another, col. 14, lines 25-28*).

#### ***Response to Arguments***

5. Applicant's arguments regarding the Sullivan and Cosic do not teach the features of the amended claims, with respect to claims 1-28, have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

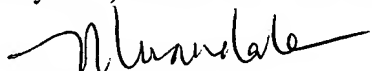
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is (571)-273-8300.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

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Miranda Le  
January 17, 2008